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Application No.: 09/338,286

Re: Appeal Brief

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Richard Snow, *et al.*

Attorney Docket No.: IGT1P073/P-229

Application No.: 09/338,286

Examiner: John M. Hotaling

Filed: June 22, 1999

Group: 3713

Title: PROCESSING PLATFORM FOR A
GAMING MACHINE

CERTIFICATE OF TRANSMISSION

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Tomika Thomas

Tomika Thomas

**APPEAL BRIEF TRANSMITTAL
(37 CFR 192)**

Mail Stop Appeal Brief-Patents
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P.O. Box 1450
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Sir:

This brief is in furtherance of the Notice of Appeal filed in this case on August 21, 2003.
This brief is transmitted in triplicate.

This application is on behalf of

☐

Small Entity

☒

Large Entity

Pursuant to 37 CFR 1.17(f), the fee for filing the Appeal Brief is:

☐

\$165.00 (Small Entity)

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Applicant(s) believe that no (additional) Extension of Time is required; however, if it is determined that such an extension is required, Applicant(s) hereby petition that such an

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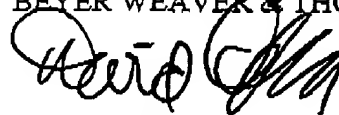
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Appeal Brief fee	\$330.00
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Respectfully submitted,
BEYER WEAVER & THOMAS, LLP



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PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

EX PARTE SNOW

Application for Patent

Filed: June 22, 1999

Serial No. 09/338,286

FOR:

Processing Platform in a Gaming Machine

APPEAL BRIEF

CERTIFICATE OF TRANSMISSION

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Signed:

Tomika Thomas

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(1) REAL PARTY IN INTEREST

IGT

Address: 9295 Prototype Drive, Reno, NV 85910

(2) RELATED APPEALS AND INTERFERENCES

N/A

(3) STATUS OF CLAIMS

There are a total of 9 claims pending in this application (claims 10, 11, 15, 16 and 20-24). Claims 1-10 were submitted with the application as filed. Claims 1-9 were cancelled in a preliminary amendment filed on March 10, 2002 and new claims 11-21 were added in response to the Final Office Action of December 1, 2001. Claims 12-14 and 17-19 were cancelled in response to the Office Action of March 26, 2002. New claims 21-24 were added in response to the Office Action of March 26, 2002. Claims 10, 11, 15, 16 and 20-24 have been rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6, 071,190 issued June 6, 2000 to Weiss, et al in view of Microsoft Press Computer Dictionary 3rd Edition and Newtons Telecom Dictionary. All rejections of claims 10, 11, 15, 16, and 20-24 are appealed.

(4) STATUS OF AMENDMENTS

No amendments have been made since the Final Office Action of May 21, 2003.

(5) SUMMARY OF INVENTION

All of the claims on appeal are directed to a processing platform for operation of a gaming machine, such as a gaming machine providing a game of chance in a casino gaming environment. More specifically, the claims recite a gaming machine comprising a motherboard and a first gaming processing subsystem board connected to the motherboard via an expansion slot on the motherboard. The motherboard can be from a common PC-type personal computer.

One aspect of the present invention provides a gaming machine comprising:

1) a housing; 2) a user input connected to the housing; 3) a display connected to the housing; and 4) a control system located within the housing (See generally, FIG. 2 and page 5, lines 5-13).

The control system comprises a processing platform with a motherboard and a gaming processing subsystem board designed to control a game played on the gaming machine. The gaming processing subsystem board is coupled to the motherboard via an expansion slot on the motherboard. The motherboard comprises: 1) a first processor; 2) a memory wherein the first processor and the memory are designed or configured to control and operate one or more of i) visual displays, ii) attraction animation features, iii) audio player feedback, iv) real-time video presentations, v) and operating system and combinations thereof; 3) one or more buses on the more on the motherboard wherein each of the one or more buses uses an interface protocol selected from a group consisting of peripheral component interconnect (PCI), industrial standard architecture (ISA), Versa Module Europa (VME), and accelerated graphics port (AGP); and 4) one or more expansion slots for connecting a board to the buses (See generally, FIG. 1, page 3, line 16-page 4, line 23 and page 5, line 24-31)

The gaming processing subsystem comprises a first gaming processing subsystem board connected to one of the buses on the motherboard via one of the expansion slots on the motherboard. The first gaming processing subsystem board comprises 1) a second processor designed or configured to control the gaming machine and to control Input/Output to the gaming machine; 2) a non-volatile memory for storing at least payout information; 3) a data memory socket located on the first gaming processing subsystem board designed to accommodate a data prom; and 4) a bus interface for connecting the first gaming processing subsystem board to one of the buses via one of the expansion slots on the motherboard. The first gaming processing subsystem board is designed to control one or more of: i) a game play history, ii) gaming machine access, iii) user interface devices, iv) money handling devices, v) gaming machine I/O communications, v) random number generation and vi) progressive jackpot information (See Generally, FIG. 1, page 3, line 16-page 5, line 4 and page 2, lines 16-23).

Another aspect relates to the hardware architecture of the present invention. In particular, the processing platform may use a personal computer processor architecture

where the first gaming processing subsystem board connects to the motherboard via a PCI expansion slot (See generally page 4, lines 12-24).

Another aspect of the present invention relates to communication capabilities and methods of the first gaming processor subsystem board. For instance, the first processor on the mother board and the first gaming processing subsystem board can communicate using a software driven application program interface (See generally page 3, lines 23-32). As another example, the first gaming processing subsystem board can include a serial UART (Universal Asynchronous Receiver/Transmitter) that allows the first gaming processor subsystem board to communicate with internal gaming devices, external gaming devices and combinations thereof (See generally FIG. 1 and page 4, line 30-page 5, line 4).

(6) ISSUES

The issues, which Appellant believes to be most pertinent to the present appeal, include:

A) Whether U.S. Patent No. 6, 071,190, to Weiss and/or Microsoft Press Computer Dictionary 3rd Edition and/or Newtons Telecom Dictionary render any of claims 10, 15, 16, 20, 24 unpatentable by suggesting to one of skill in the art a control system for a gaming machine comprising a first gaming processing subsystem board designed to control a game played on the gaming machine connected to a bus on a motherboard via an expansion slot on the motherboard. (Claims 10, 15, 16, 20 and 24)

B) Whether U.S. Patent No. 6, 071,190, to Weiss and/or Microsoft Press Computer Dictionary 3rd Edition and/or Newtons Telecom Dictionary render claim 11 unpatentable by suggesting to one of skill in the art a control system for a gaming machine comprising a first gaming processing subsystem board and a second gaming processing subsystem board designed to control a game played on the gaming machine connected to a bus on a motherboard via an expansion slot on the motherboard. (Claim 11)

C) Whether U.S. Patent No. 6, 071,190, to Weiss and/or Microsoft Press Computer Dictionary 3rd Edition and/or Newtons Telecom Dictionary render claim 16 unpatentable

by suggesting to one of skill in the art a control system for a gaming machine comprising a first gaming processing subsystem board designed to control a game played on the gaming machine connected to a bus on a motherboard via an expansion slot on the motherboard where the subsystem board is a PCI expansion card designed to interface with a PCI bus. (Claim 16)

D) Whether U.S. Patent No. 6, 071,190, to Weiss and/or Microsoft Press Computer Dictionary 3rd Edition (referred to herein as Microsoft) and/or Newtons Telecom Dictionary (referred to herein as Newtons) render any of claims 23 and 24 unpatentable by suggesting to one of skill in the art a control system for a gaming machine comprising a first gaming processing subsystem board designed to control a game played on the gaming machine connected to a bus on a motherboard via an expansion slot on the motherboard where the first gaming processor system board includes a serial UART that is used by the first gaming processing subsystem board to communicate with internal gaming devices, external gaming devices and combinations thereof. (Claims 23 and 24)

(7) GROUPING OF THE CLAIMS

The rejected claims do not stand or fall together, and will be argued separately. The following claim groups will be argued separately.

- I. 10, 15, 20 and 24
- II. 11
- III. 16
- IV. 22 and 23

(8) ARGUMENTS

ISSUES UNDER 35 U.S.C. § 103

Claims 10, 11, 15, 16 and 20-24 have been rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6, 071,190 in view of Microsoft Press Computer Dictionary 3rd Edition and Newtons Telecom Dictionary

In summary, Weiss et al. teaches a hardware architecture for computing on a gaming machine. Weiss describes two processing areas linked together: 1) a traditional gaming machine computing area with a main board connected to a backplane and 2) a multimedia PC with a motherboard. The two processing areas are linked by a Parallel Display Interface (PDI) connection and/or a serial RS-232 connection and communicate using a secure communication protocol. The PDI connection and the RS-232 connection are cable connectors that are compatible with input/output ports found on the back of a PC. The Microsoft Press Computer Dictionary provides a definition of an expansion slot on a computer motherboard. Newtons Telecom Dictionary provides a definition of a PCI (Peripheral Component Interconnect) bus on a PC motherboard.

The Appellant's explanation of the differences between the above-cited references and the claimed invention will first be discussed in the context of the group (I) claims, and then in the context of the group (II)-(IV) claims. As explained below, the claims of all groups are patentable over for various reasons.

Group (I) Arguments

With respect to issue A, the present invention, as recited in independent claim 1, requires a) a motherboard with one or more buses and one or more expansion slots for connecting a board to the buses and b) a first gaming processing subsystem board designed to control a game played on the gaming machine. The first gaming processing subsystem board is connected to one of the buses on the motherboard via one of the expansion slots on the motherboard. As described in claim 20, the motherboard can be a PC-type motherboard. While the Weiss, Microsoft and Newtons references do describe a gaming processing subsystem and motherboards, an arrangement of components and their connections to one another in a computing architecture of Weiss is quite different from the present invention. Further, Weiss seemingly teaches away from the computing architecture of the present invention.

The Examiner has relied on Weiss et al. patent's disclosure of various gaming machine components. Examiner states,

Weiss discloses all of the instant application without specifically disclosing how the various processing subsystems are connected. The arrangement of parts (processor, memory, etc.) is considered to be an obvious

arrangement of parts (processor, memory, etc.) well within the capabilities of one skilled in the art when taken in combination with Weiss. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Weiss to connect the various processing subsystems, such as by using a personal computer based design.

Appellant recognizes that Weiss describes the individual components that are used in the present invention. However, the number of components used in Weiss and their arrangement is quite different than the present invention.

Weiss describes two processing areas: 1) an open processing area based upon a multimedia PC computer (See generally FIGs. 1 and 7 and Col. 12) and 2) a secure processing area for performing gaming functions (see generally FIGs. 1 and 6 and Col. 11:33-Col. 12:15). Each processing area includes its own motherboard. FIG. 6 of Weiss shows the secure processing area, which includes a main board (i.e., a motherboard). The main board includes a processor and associated components (video expansion board, processor board and memory expansion board). The motherboard is coupled to a backplane board (a separate board that the motherboard can be plugged into). The backplane board provides communication connections to gaming devices and the open processing area (white box 20). This is a typical computing design for a gaming machine (Col. 1: 19-41) and requires a custom designed main board that is compatible with its associated components (e.g., the processor and the video expansion board).

In FIG. 7 of Weiss, the open processing area is described as a multimedia PC. As is well known in the computing arts, a multimedia PC includes its own motherboard. Contrary to Examiner's assertion, Weiss does disclose how the various processing subsystems are connected. Weiss specifies that the communication link (30), between the first processing area and the second processing area, is via the parallel display interface 176 and/or the RS-232 serial interface (178) (FIG. 6 and Col. 11, 64-67). In a PC, these types of interfaces are provided as input/output ports on the back of the PC and provide for a cable connection from the PC to peripheral devices, such as a printer or a display. It is further noted that communication rates on these types of interfaces are slow and are not designed to handle large amounts of information.

The present invention, as recited claim 10, requires that a first gaming processing subsystem board to be plugged into an expansion slot on the motherboard. The first gaming processing subsystem board provides gaming functions, such as a game play history, ii) gaming machine access, iii) user interface devices, iv) money handling

devices, v) gaming machine I/O communications, v) random number generation and vi) progressive jackpot information. The motherboard provides general functions, such as i) visual displays, ii) attraction animation features, iii) audio player feedback, iv) real-time video presentations, v) and operating system and combinations thereof.

In contrast, Weiss describes, a secure processing area that provides gaming functions. The main board, which is a motherboard, includes its own busses, RAM/ROM memory and expansion slots for a processor board, video expansion board, memory expansion board and other circuitry (e.g., a system event controller, a random number generator, a win decoder/paytable, status indicators, a communications handler and a display/sound generator Col. 11:40-45). The motherboard is plugged into or integrally formed with a separate backplane board. Typically, in a gaming machine, the backplane is mounted on a vertical "backplane surface" of a gaming machine cabinet and the main board that provides the gaming functions is plugged into the backplane, such that it is parallel to the base of the gaming machine and perpendicular to the backplane. The backplane board provides a cable connection to a separate multimedia PC, which is the open processing area for providing general functions. The separate multimedia PC includes its own motherboard.

It is clear that Weiss does not teach a first gaming processing subsystem board designed to control a game played on the gaming machine and designed to be plugged into an expansion slot on a motherboard. As Weiss describes, the main board, which provides the gaming functions as the secure processing area, is plugged into the backplane and not an expansion slot on the motherboard as the present invention requires.

Essentially, Weiss provides two computers that are capable of functioning independently. The two computers duplicate many of the same functions. For instance, in Weiss, both processing areas are described as providing a video card, a sound card, RAM, a processor and communication capabilities that are coupled to or located on a main board with busses. Further, each of these computing areas could be used to display and generate a game independent of one another if the two computing areas were not linked.

To allow the secure processing area of Weiss to be plugged into an expansion slot on the motherboard of its open processing area, in a manner that is required in the present invention, the secure processing area would have to be totally redesigned. One could visualize this design effort as being akin to designing one PC computer to fit in an expansion slot of a second PC computer. For example, the main board of the secure processing area would have to be shrunk in size to fit into the expansion slot in the motherboard of the open processing area. As is well known in the PC arts, expansion

cards for motherboards are typically much smaller in area than the motherboard. The shrinking of the main board of the secure processing area would require a new layout design for all of its circuitry to fit on the smaller board. Further, a new bus interface and bus compatibility circuitry would have to be added to allow the redesigned main board to couple to the motherboard in open processing area and communicate over one of the busses on the motherboard. Further, the video expansion board, processor board and memory expansion board would likely have to be integrated into the redesigned main board to allow it to fit into an expansion slot on the motherboard i.e., to formulate the redesigned main board as an expansion card rather than a motherboard with various expansion cards projecting from it.

In addition, since the redesigned main board would no longer be plugged into the backplane, a new communications connection scheme would have to be devised and added to the redesigned main board and/or the processing board on the motherboard in the open processing area of Weiss to allow the redesigned main board to communicate with its various gaming devices, such as slot reels, touch screens, bill validators, etc (see FIG. 6). The current main board design of the secure processing area routes all of its communications through its interface with the back plane. The motherboard of the open processing area in Weiss (FIG. 7) does not provide connections to backplane or the gaming devices shown in FIG. 6. Thus, if placed directly on the motherboard, a new communication interface/architecture would be needed.

Some advantages of the present invention, which uses a board connected to an expansion slot on a motherboard, as compared to using two separate computers connected by a cable connection as described in Weiss is the present invention requires less hardware. For example, Weiss describes two motherboards and associated their associated boards while the present invention describes a motherboard and board connected to it via an expansion slot. In addition, Weiss describes the use of two video cards and two sound cards one for each motherboard. Further, Weiss's design takes up much more space in the gaming machine cabinet, which is at a premium in gaming machine design, since basically two separate computers must be accommodated while the present invention essentially requires space for a single computer.

The Examiner does not describe motivation for the modifications in Weiss that would enable the secure processing area to be embodied on an expansion board that could be plugged into an expansion slot on the motherboard of the open processing area as required in the present claims. The Examiner states:

the Examiner is unsure what dramatic modification of Weiss the applicant's representative is referring to. It seems the claims are directed to each and every method of placing additional memory on a buss on a motherboard in a computer backplane and the examiner contends that the methods are notoriously well known.

As quoted above, the Examiner has stated, "It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Weiss to connect the various processing subsystems, such as by using a personal computer based design."

Thus, to justify the rejection, the Examiner appears to be relying on the level of one of skill of the art to fill in missing elements from the prior art. Assuming for the sake of argument that the level of skill in this art, as posited by the Examiner, allows one to use the teachings of Weiss to connect the various processing subsystems in the manner as the Examiner has described, this does not change the fact that the burden is not on the Appellants to give reasons why something is *not* obvious to those of skill in the art. As is well understood, obviousness is determined from the vantage point of a hypothetical person having ordinary skill in the art to which the patent pertains. See 35 U.S.C. §103(a). This legal construct also presumes that all prior art references in the field of the invention are available to this hypothetical skilled artisan. See *In re Rouffet*, 47 USPQ2d 1453 (Fed. Cir. 1998); *In re Carlson*, 25 USPQ2d 1207, 1211 (Fed. Cir. 1993).

Just because the necessary knowledge or common sense *may* have been within the province of the ordinary artisan does not in and of itself make it so, absent clear and convincing evidence of such knowledge. *Smiths Industries Medical Systems, Inc. v. Vital Signs, Inc.*, 50 USPQ2d 1641 (Fed. Cir. 1999); See also *C.R. Bard, Inc. v. M3 Sys., Inc.*, 48 USPQ2d 1225, 1232 (Fed. Cir. 1998); *Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.*, 227 USPQ 657, 667 (Fed. Cir. 1985).

Regardless of the capabilities of the hypothetical person of skill in the art, the Examiner must identify the specific principles that would lead one of skill to supply the missing elements. This the Examiner has not done. The law requires that when an examiner relies on the level of skill in the art to overcome the differences between the claimed invention and the selected elements in the references, that examiner must explain what "specific understanding or technological principle within the knowledge of one of ordinary skill in the art would have suggested the invention." See *Rouffet* at 1458.

In *Al-Site Corporation and Magnivision, Inc. v. VSI International, Inc.*, 50 USPQ2d 1161 (Fed. Cir. 1999), the Federal Circuit discussed in the detail the interplay of level of skill in the art and missing elements of a claim:

The level of skill in the art is a prism or lens through which [a claim reviewer] views the prior art and the claimed invention. This reference point prevents these deciders from using their own insight or, worse yet, hindsight, to gauge obviousness. Rarely, however, will the skill in the art component operate to supply missing knowledge or prior art to reach an obviousness judgment. See *W.L. Gore & Assocs., Inc. v. Garlock, Inc.*, 220 USPQ 303, 312-13 (Fed.Cir.1983) ("To imbue one of ordinary skill in the art with knowledge of the invention in suit, when no prior art reference or references of record convey or suggest that knowledge, is to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher."). Skill in the art does not act as a bridge over gaps in substantive presentation of an obviousness case, but instead supplies the primary guarantee of objectivity in the process. See *Ryko Mfg. Co. v. Nu-Star, Inc.*, 21 USPQ2d 1053, 1057 (Fed.Cir.1991).

The Federal Circuit also cautioned that if a "rote invocation" of the level of skill in the field

could suffice to supply a motivation to [find obviousness], the more sophisticated scientific fields would rarely, if ever, experience a patentable technical advance. Instead, in complex scientific fields, [an Examiner] could routinely identify the prior art elements in an application, invoke the lofty level of skill, and rest its case for rejection. Rather, the Examiner and the Board must safeguard against hindsight analysis and rote application of the legal test for obviousness. *Rouffet* at 1458.

Importantly, it is only a rare case when the level of skill in the art can operate to supply missing claim elements. Here, the Examiner has provided no evidence showing what specific understanding would lead one of skill in the art to perform the modifications in Weiss to provide a first gaming processing subsystem board designed to control a game played on the gaming machine and designed to be plugged into an expansion slot on a motherboard as is recited in the pending claims.

The Microsoft and Newtons references merely provide definitions relating to terms used in the claims. If anything, these references can assist in understanding what tools are within the level of skill in the art. What these references do not show is how to

connect the gaming computer of Weiss into an expansion slot on a PC motherboard, such as a PCI expansion slot, or how to redesign gaming computer of Weiss to fit onto a PCI card that can be plugged into a PC motherboard nor does Weiss provide motivation for the modifications suggested by the Examiner.

Another reason that the present invention as recited in the pending claims is a patentably distinct and non-obvious improvement over Weiss and the Microsoft and Newtons references, is that Weiss teaches away from the present invention. From Col. 1, line 46-Col. 2, line 35, Weiss enumerates many reasons for not using a PC based design for a gaming machine such as described in the present invention recited in the pending claims. Weiss explains that

Today's trend in gaming devices is towards an increasing utilization of personal computer based gaming platforms. Personal computer based platforms are being employed by designers to make use of real time operating systems which allow for multi-threaded/multi-tasking processes and the use of many "off the shelf" device drivers. While at first, this may seem an advantage, it is not a wise choice in an environment requiring high security and regulatory monitoring. Designs of this nature elude validation by regulatory authorities in two areas, initial laboratory evaluation and field validation. Emphasis added.

Gaming machines are subject to significant regulatory overview in a large number of jurisdictions in regards to hardware and software. For instance, approval of hardware used to generate the game of chance typically requires two-three years before it can be deployed in the field.

Weiss further states,

Any in depth review of a PC based gaming device is both difficult and far from definitive, requiring tremendous engineering resources and specialist in computer security which are expensive and normally available only on a consultant basis. Even if these resources were available, it is impossible to study the hundreds of thousands of lines of source code comprising all of the elements of such a system. Emphasis added.

Weiss suggests that it would be impossible to dissect the code of an operating system that is used on PC based device to degree that would satisfy the regulators. One of

the potential functions of the motherboard, which can be PC based, as recited in claims 10 and 20 is to control and operate an operating system.

Weiss further states,

In addition, the time involved in just learning how to build the executable code from the source for correlation is time and resource prohibited. The multi-threaded/multi-tasking process nature of the programs in these devices make it extremely difficult to locate any compromising code which becomes clandestine since the actual sequence of the execution is hidden to the evaluating engineer. Furthermore, the code set for a complex PC device may not be fully embraced by the evaluating engineer. The significant reduction of risk for detection in compromising the more complex code is an invitation to inside compromise by device designers.

Gaming machines are designed to be field verifiable. As an example, gaming software is stored on a read-only memory that is tested by a technician certified by a gaming jurisdiction prior to its installation on a gaming machine. Weiss enumerates reasons why a PC-based design may be field verifiable. Weiss states, **"PC based devices are simply not field verifiable, rendering any gaming jurisdiction's device inspection program or any other field validation effort useless for this gaming equipment (emphasis added)."**

Accordingly, it is respectfully submitted that claim 10 is patentable over the cited art. Claims 15, 20 and 24 each depend directly or indirectly from claim 1 and are therefore patentable for at least the reasons that claim 10 is patentable over the art.

Group (II) Arguments

With respect to issue A, claim 11 requires all limitations of claim 10. Therefore, it is patentable over the cited art for at least the reasons presented above. Claim 11 additionally recites a second gaming processing subsystem board. The second gaming subsystem processor board can also be connected to the motherboard via one its expansion slots.

Weiss, Microsoft or Newton, alone or in combination, do not teach or suggest a first processing subsystem board and a second processing subsystem board designed to

control the gaming machine and to control Input/Output to the gaming machine connected to a mother board comprising 1) a first processor; 2) a memory wherein the first processor and the memory are designed or configured to control and operate one or more of i) visual displays, ii) attraction animation features, iii) audio player feedback, iv) real-time video presentations, v) and operating system and combinations thereof; 3) one or more buses on the more on the motherboard; 4) one or more expansion slots for connecting a board to the bus. Accordingly, it is respectfully submitted that claim 11 is patentable over the cited art.

Group (III) Arguments

With respect to issue A, claim 16 requires all limitations of claim 10. Therefore, it is patentable over the cited art for at least the reasons presented above. Claim 16 additionally recites the gaming processor subsystem board is a PCI expansion card designed to interface with a PCI bus on the motherboard. As stated in Newtons, "PCI: a 32 bit local bus inside a PC or MAC designed by Intel for the PC. According to Intel, it can transfer data between the PC's main microprocessor (its CPU) and peripherals (hard disks, video adapters, etc.) at up to 132 megabytes per second." Weiss teaches a serial RS-232 connection or a PDI cable connection between the main board providing gaming functions and the motherboard of the PC. This connection scheme in Weiss is very slow compared to a PCI bus and limits the functionality of the design described by Weiss. An RS-232 cable connection or a PDI cable connection provides communications speeds in range of a few kilobytes per second as compared to 132 megabytes per second of a PCI bus. Further, a PCI card is much smaller than the main board and its associated expansion boards described for the secure processing areas in Weiss. The combination of Weiss, Microsoft and Newtons do not teach or suggest using a PCI expansion card that allows for a high-speed connection between its secure processing area and its open processing area or any teaching or motivation to shrink the size of boards comprising its secure processing area. Accordingly, it is respectfully submitted that claim 16 is patentable over the cited art.

Group (IV) Arguments

With respect to issue A, claims 23 and 24 require all the limitations of claim 10. Therefore, they are patentable over the cited art for at least the reasons presented above. Claims 23 and 24 additionally recites the gaming processor subsystem board includes a serial UART (Universal Asynchronous Receiver/Transmitter) used by the first gaming

processing subsystem board to communicate with internal gaming devices, external gaming devices and combinations thereof. Weiss teaches that its main board in the secure processing area must be connected to a backplane to allow the main board to communicate with the open processing area, internal gaming devices and external devices. The present invention provides for a communication connection scheme to the internal and external gaming devices when the first gaming processor subsystem board is connected directly to an expansion slot on a motherboard. In contrast, the design in Weiss requires the main board to be plugged into the back plane and does not describe any methodology where the main board could be plugged directly into a motherboard and still communicate with its associated gaming devices. Therefore, the combination of Weiss, Microsoft and Newtons do not teach or suggest a serial UART on the first gaming processing subsystem board as recited in claims 23 and 24. Accordingly, it is respectfully submitted that claims 23 and 24 are patentable over the cited art.

Conclusion

Regarding all the rejections, the cited references are insufficient to render the claims *prima facie* obvious because there is no motivation for one of ordinary skill in the art to redesign the separate gaming computers in Weiss as an expansion card for a PC motherboard as described in the present invention. In particular, the prior art references do not suggest a PCI expansion card that is compatible with a PC motherboard as is described in the present invention. Further, the Weiss reference seemingly teaches away from the PC-based computing architecture of the present invention.

In view of the foregoing, it is respectfully submitted that none of the pending claims are rendered unpatentable by the patent to Weiss and the Microsoft and Newtons references. Accordingly, the pending rejections of all of the claims under 35 U.S.C. § 103 should be reversed.

Respectfully Submitted,

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(9) APPENDIX**APPENDIX
PENDING CLAIMS**

Claims 1.-9. Cancelled

10. A gaming machine comprising:
- a housing;
 - a user input connected to the housing;
 - a display connected to the housing; and
 - a control system located within the housing, the control system comprising a processing platform that comprises:
 - a mother board, said motherboard comprising:
 - a first processor;
 - a memory wherein the first processor and the memory are designed or configured to control and operate one or more of i) visual displays, ii) attraction animation features, iii) audio player feedback, iv) real-time video presentations, v) and operating system and combinations thereof;
 - one or more buses on the more on the motherboard wherein each of the one or more buses uses an interface protocol selected from a group consisting of peripheral component interconnect (PCI), industrial standard architecture (ISA), Versa Module Europa (VME), and accelerated graphics port (AGP);
 - one or more expansion slots for connecting a board to the buses;
 - a gaming processing subsystem designed to control a game played on the gaming machine, the gaming processing subsystem comprising,
 - a first gaming processing subsystem board connected to one of the buses on the motherboard, the first gaming processing subsystem board comprising,
 - a second processor designed or configured to control the gaming machine and to control Input/Output to the gaming machine;
 - a non-volatile memory for storing at least payout information;

a data memory socket located on the first gaming processing subsystem board designed to accommodate a data prom; and

a bus interface for connecting the first gaming processing subsystem board to one of the buses via one of the expansion slots on the motherboard

wherein the first gaming processing subsystem board is designed to control one or more of: i) a game play history, ii) gaming machine access, iii) user interface devices, iv) money handling devices, v) gaming machine I/O communications, v) random number generation and vi) progressive jackpot information.

11. The gaming machine of claim 10, further comprising:

a second gaming processing subsystem board wherein the first gaming processing subsystem board is designed to control one or more of: i) a game play history, ii) gaming machine access, iii) user interface devices, iv) money handling devices, v) gaming machine I/O communications, v) random number generation and vi) progressive jackpot information..

12.-14. Cancelled.

15. The gaming machine of claim 10, further comprising:

a serial communication connection.

16. The gaming machine of claim 10, wherein the gaming processor subsystem board is a PCI expansion card designed to interface with a PCI bus.

17.-19. Cancelled.

20. The gaming machine of claim 10, wherein the processing platform employs a personal computer processor architecture.

21. (Amended) The gaming machine of claim 10, wherein the first processor on the mother board and the first gaming processing subsystem board communicate using a software driven application program interface.

22. The gaming machine of claim 10, wherein the first gaming processing subsystem board further comprises:

a serial UART (Universal Asynchronous Receiver/Transmitter).

23. The gaming machine of claim 22, wherein the serial UART is used by the first gaming processing subsystem board to communicate with internal gaming devices, external gaming devices and combinations thereof.

24. The gaming machine of claim 10, wherein the first processing subsystem board further comprises:

a random number generator.